

KIC 007667596

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007667596-01	OBS	No	682.126109	134.822495	248.4	8.704	8.3	8.6	0.89	5465	1.62	0.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007667596-01	OBS	FP	0.01	1	0	0	0	LPP_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

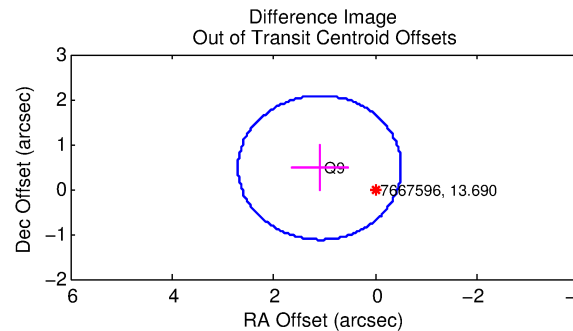
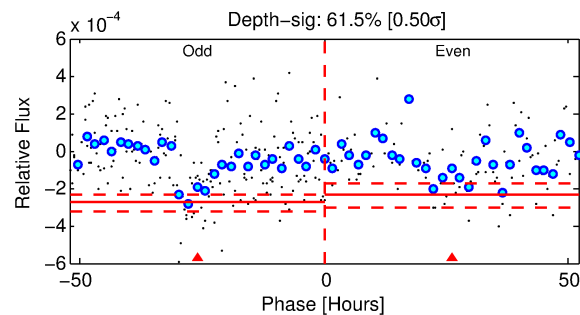
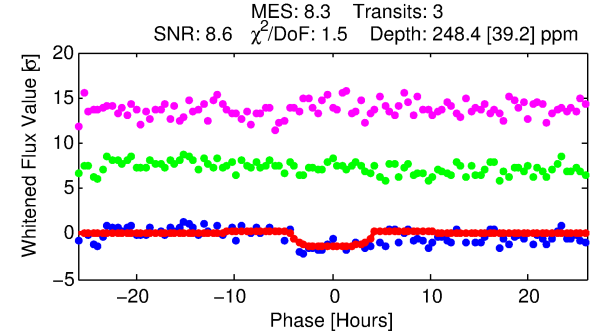
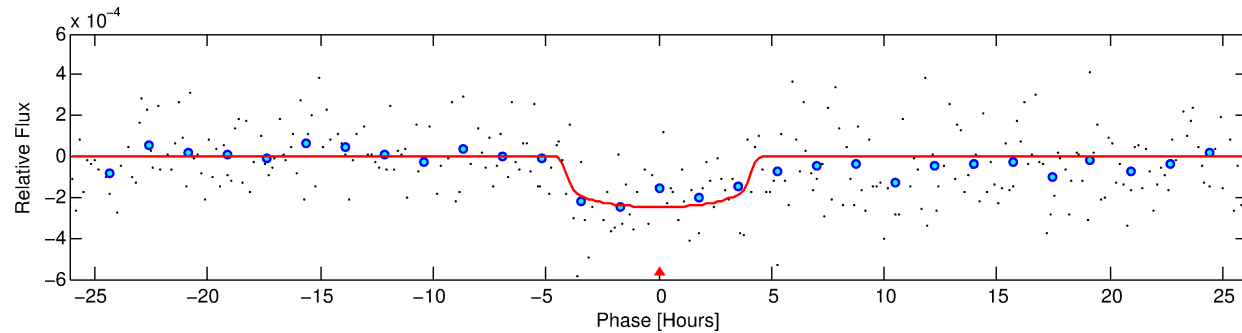
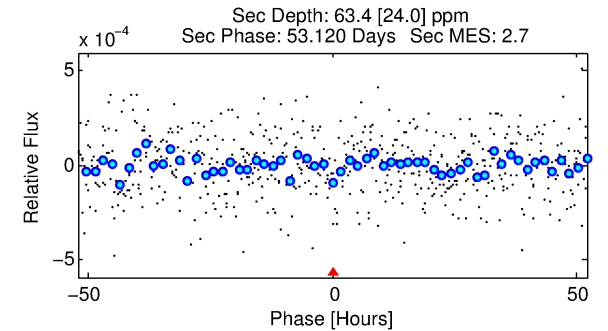
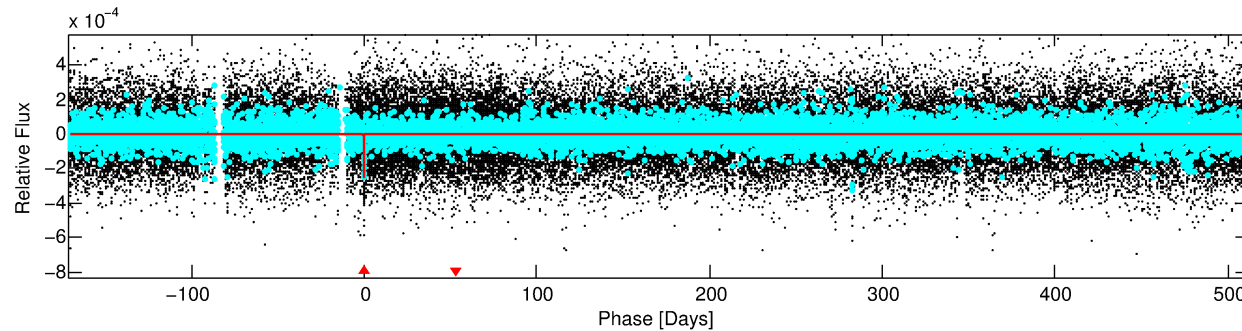
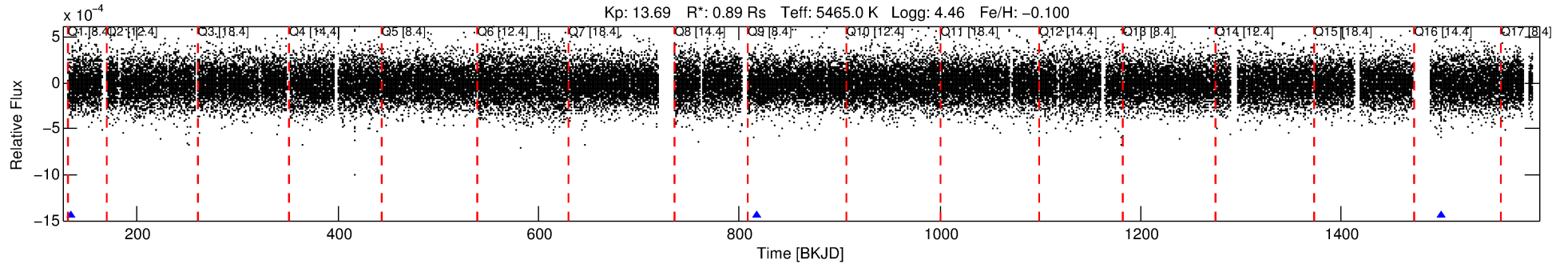
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007667596-01

No Significant Match Found

DV One-Page Summary

KIC: 7667596 Candidate: 1 of 1 Period: 682.126 d



DV Fit Results:

Period = 682.12611 [0.01387] d
Epoch = 134.8225 [0.0188] BKJD
Rp/R* = 0.0166 [0.0077]
a/R* = 328.11 [648.57]
b = 0.86 [0.62]
Seff = 0.31 [0.09]
Teq = 191 [14] K
Rp = 1.62 [0.83] Re
a = 1.4305 [0.2653] AU
Ag = 27055.40 [28137.12] [0.96σ]
Teffp = 3779 [955] K [3.76σ]

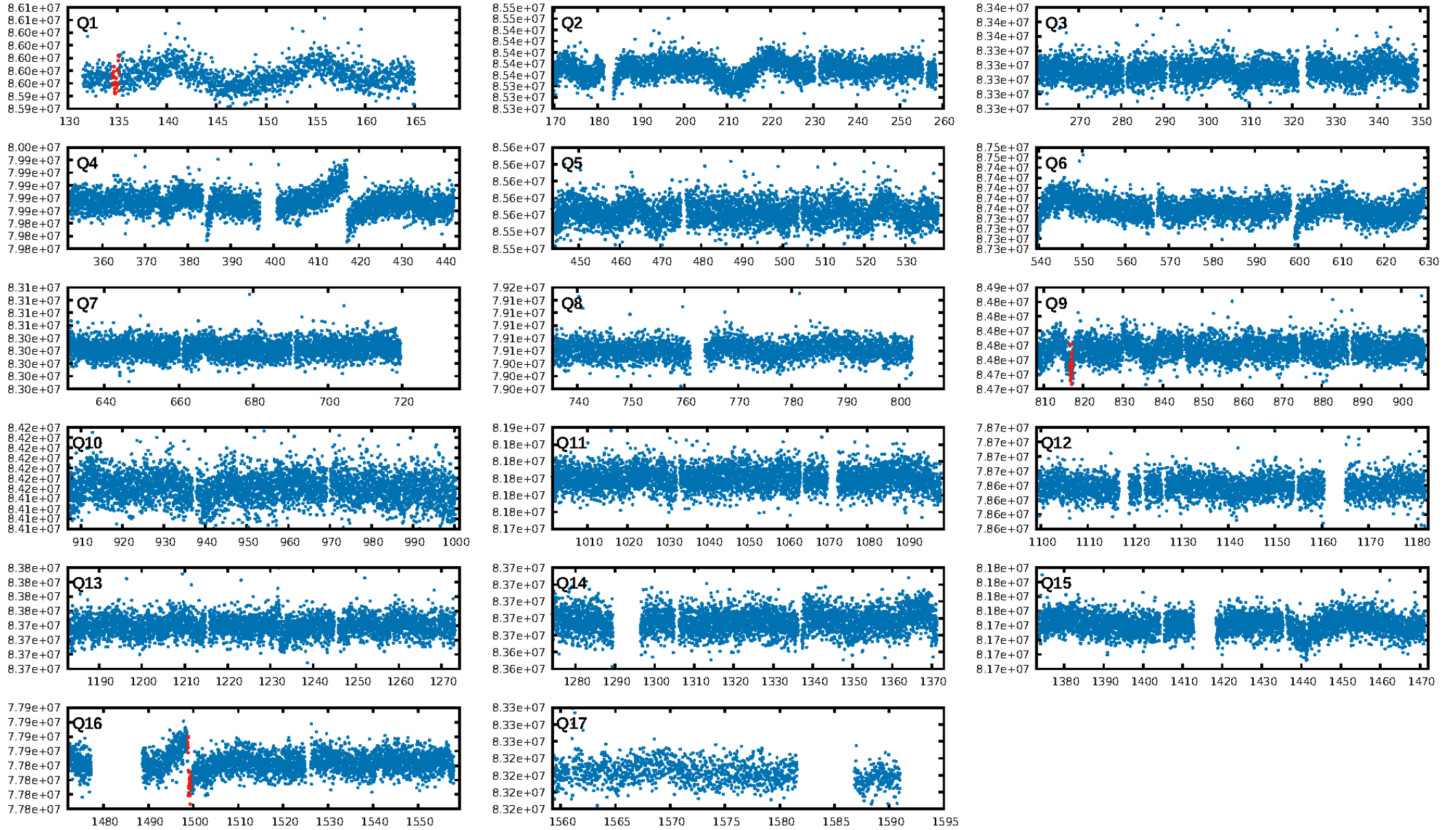
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 89.4%
Bootstrap-pfa: 1.19e-11
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -4.209
Centroid-sig: 47.2%
Centroid-so: 1.349 arcsec [1.05σ]
OotOffset-rm: 1.197 arcsec [2.24σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-rm: 1.174 arcsec [2.20σ]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

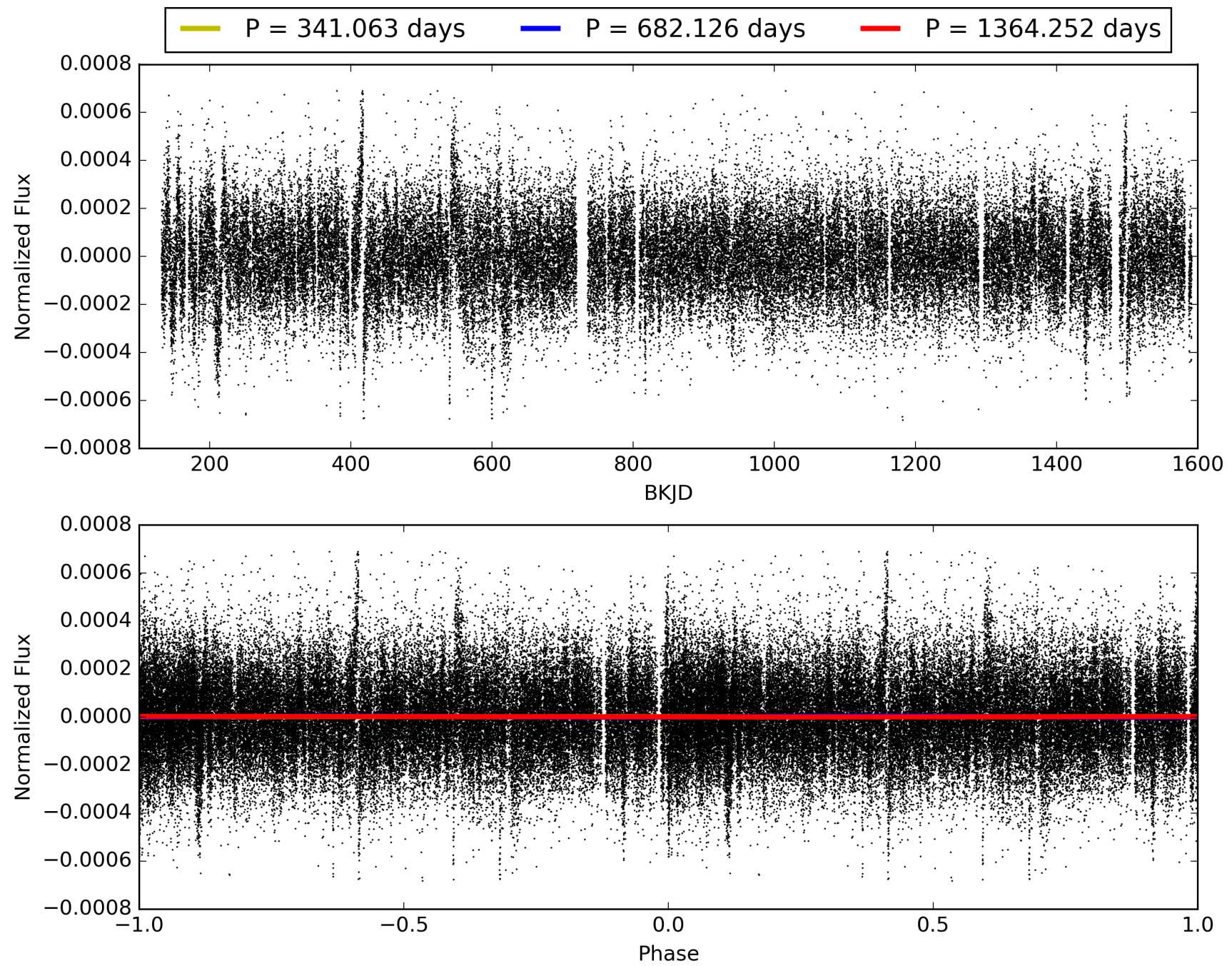
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:06:37 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007667596-01, PDC Light Curves

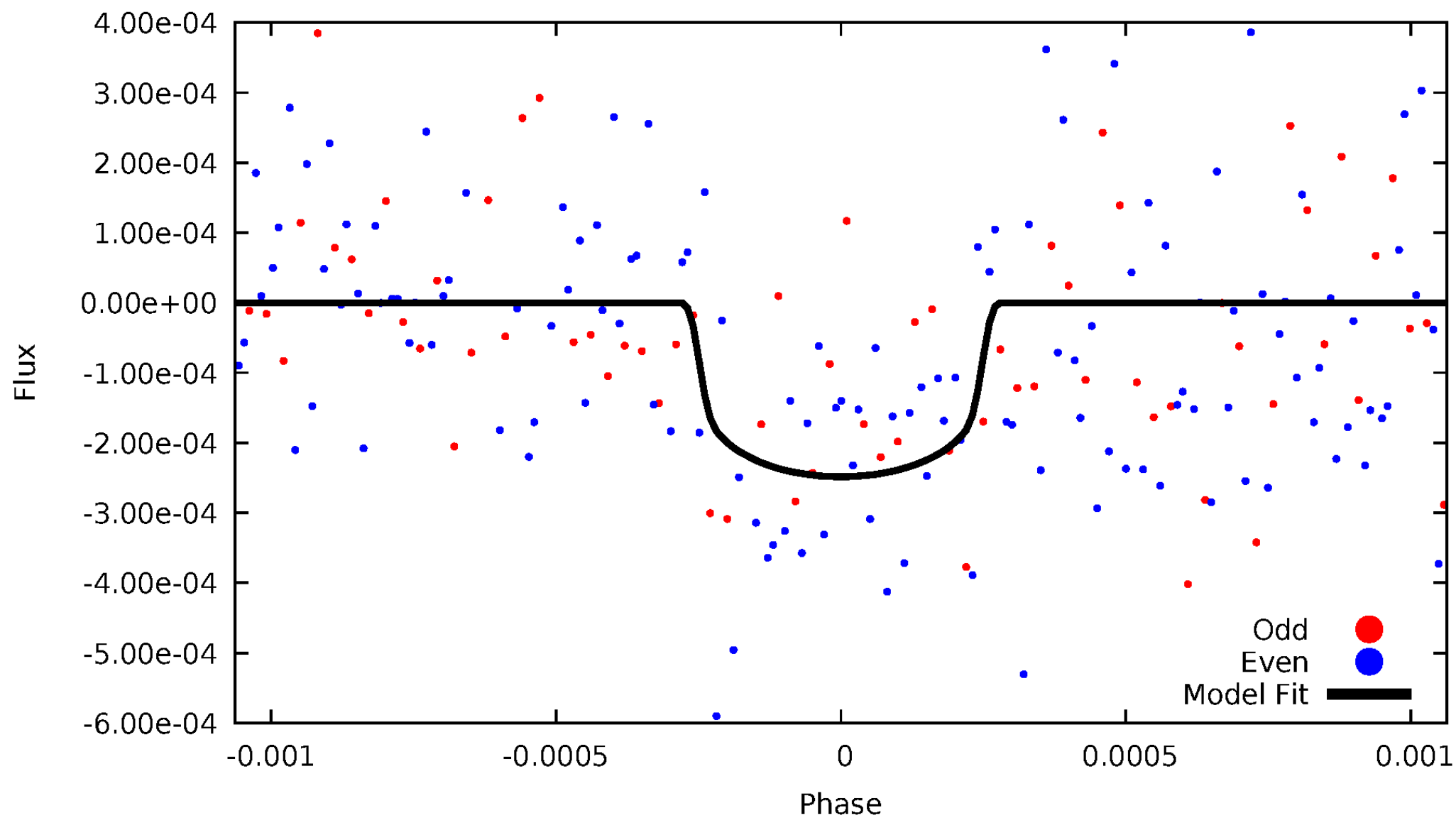


TCE 007667596-01



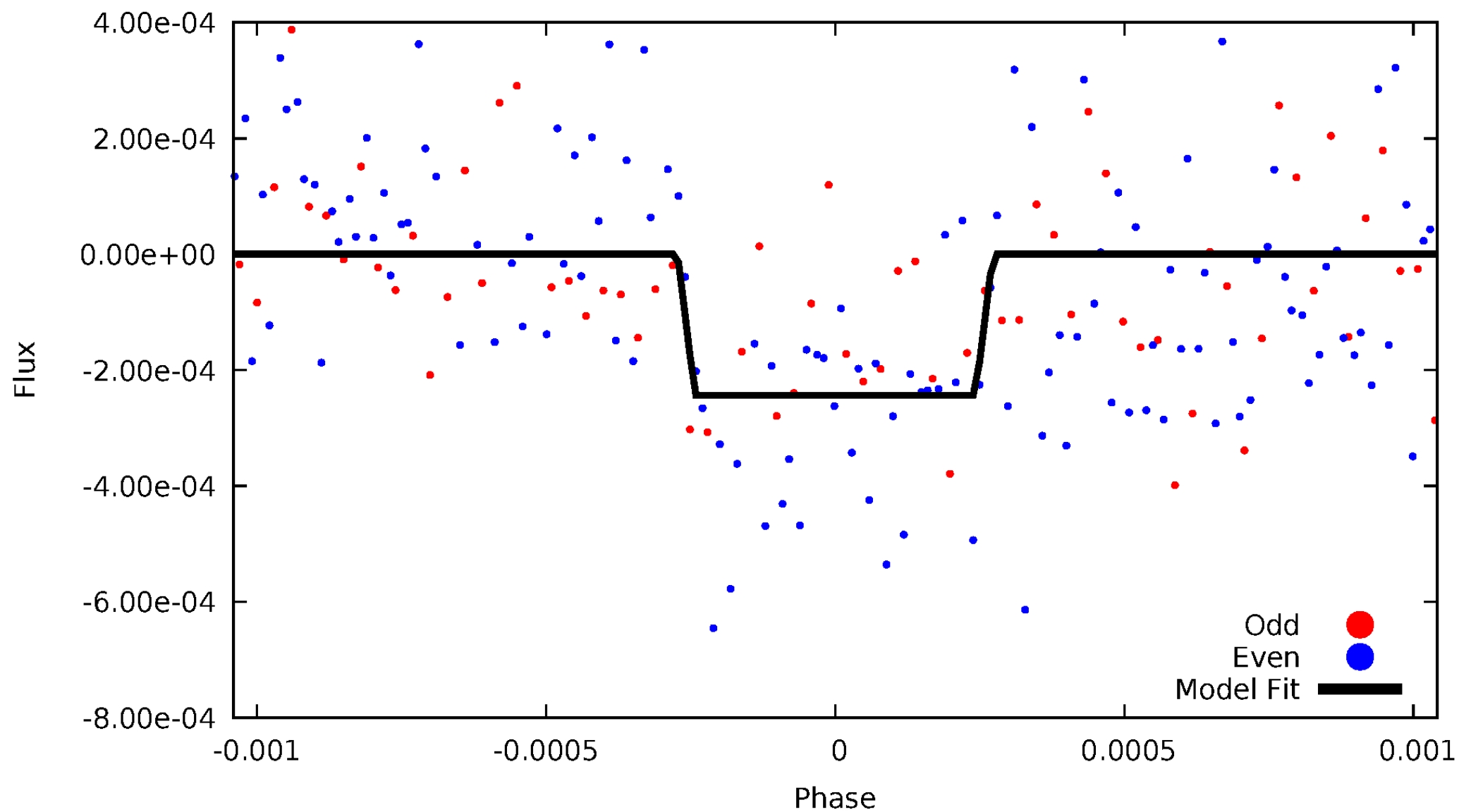
DV Odd/Even

TCE 007667596-01

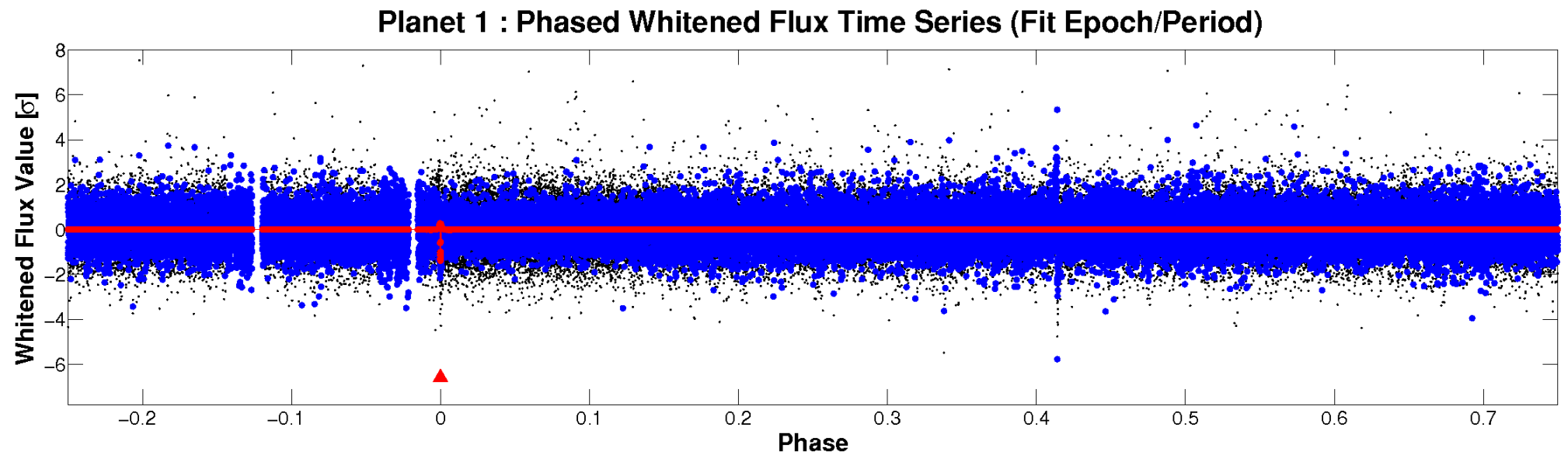
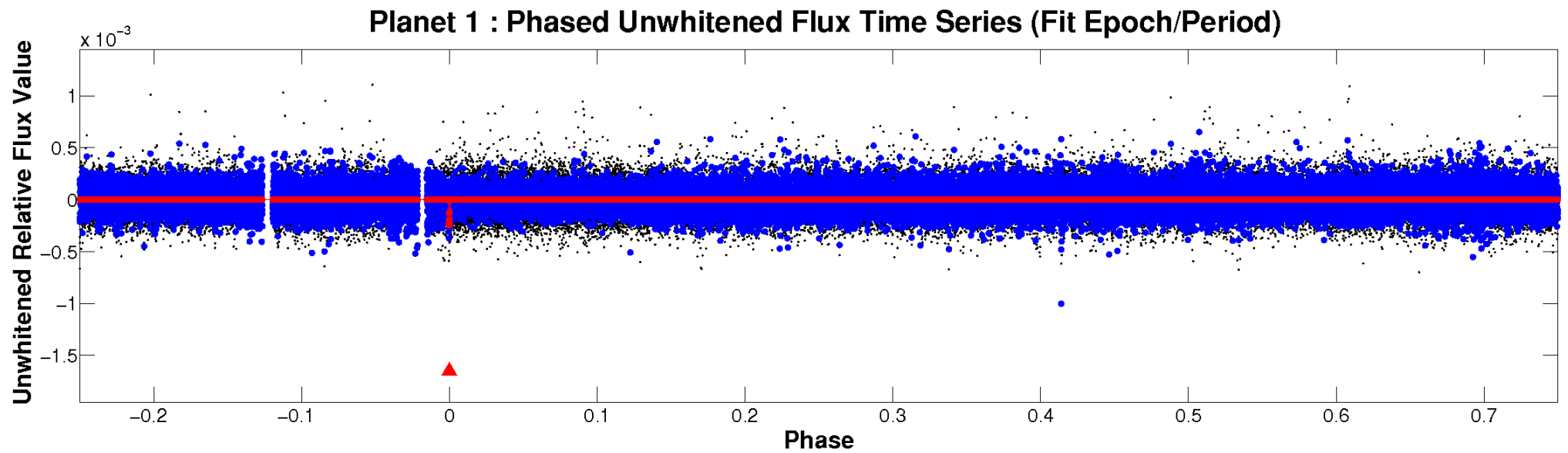


ALT Odd/Even

TCE 007667596-01

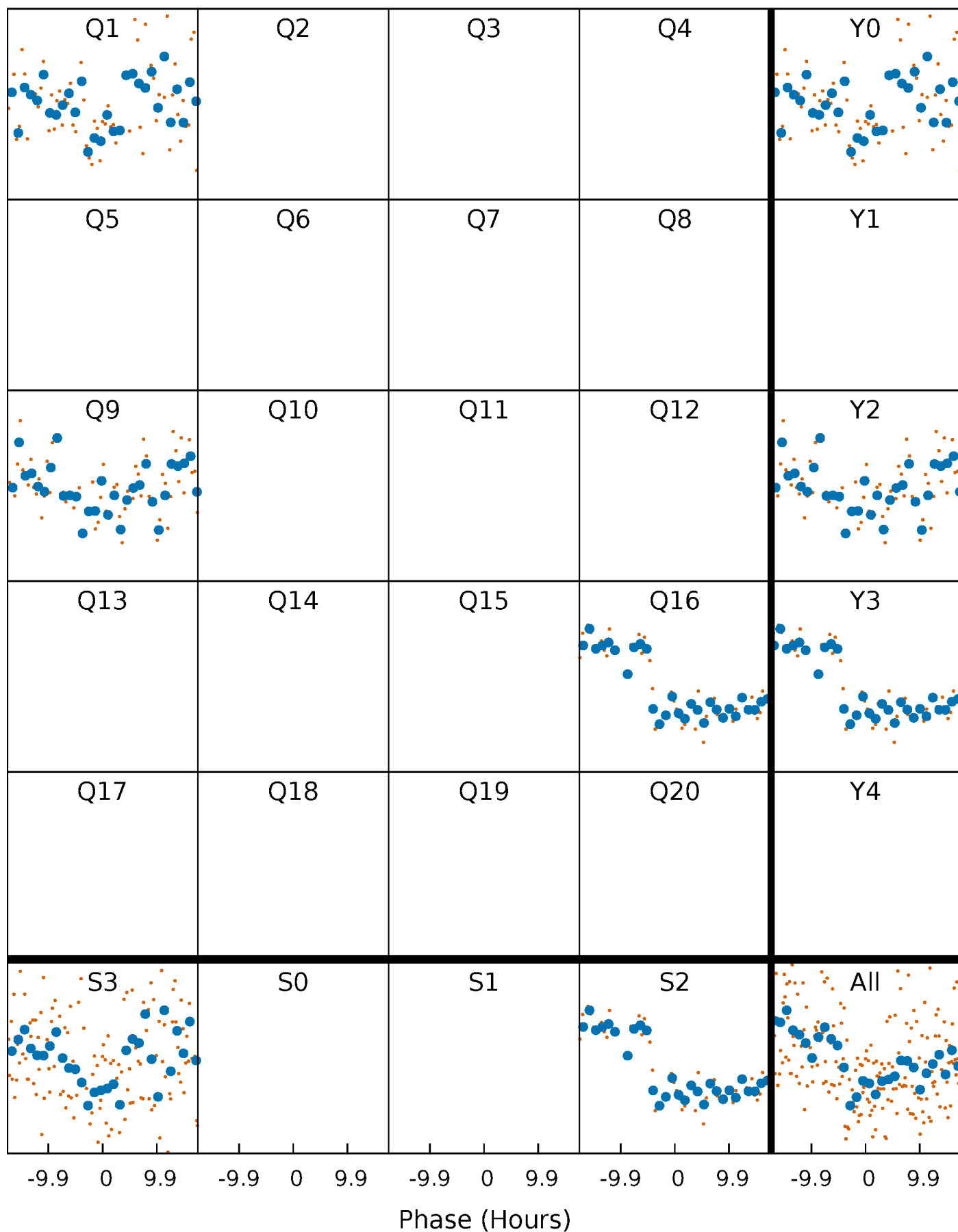


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 007667596-01 P=682.126109 Days $T_0=134.822495$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007667596-01 P=682.126109 Days $T_0=134.822495$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

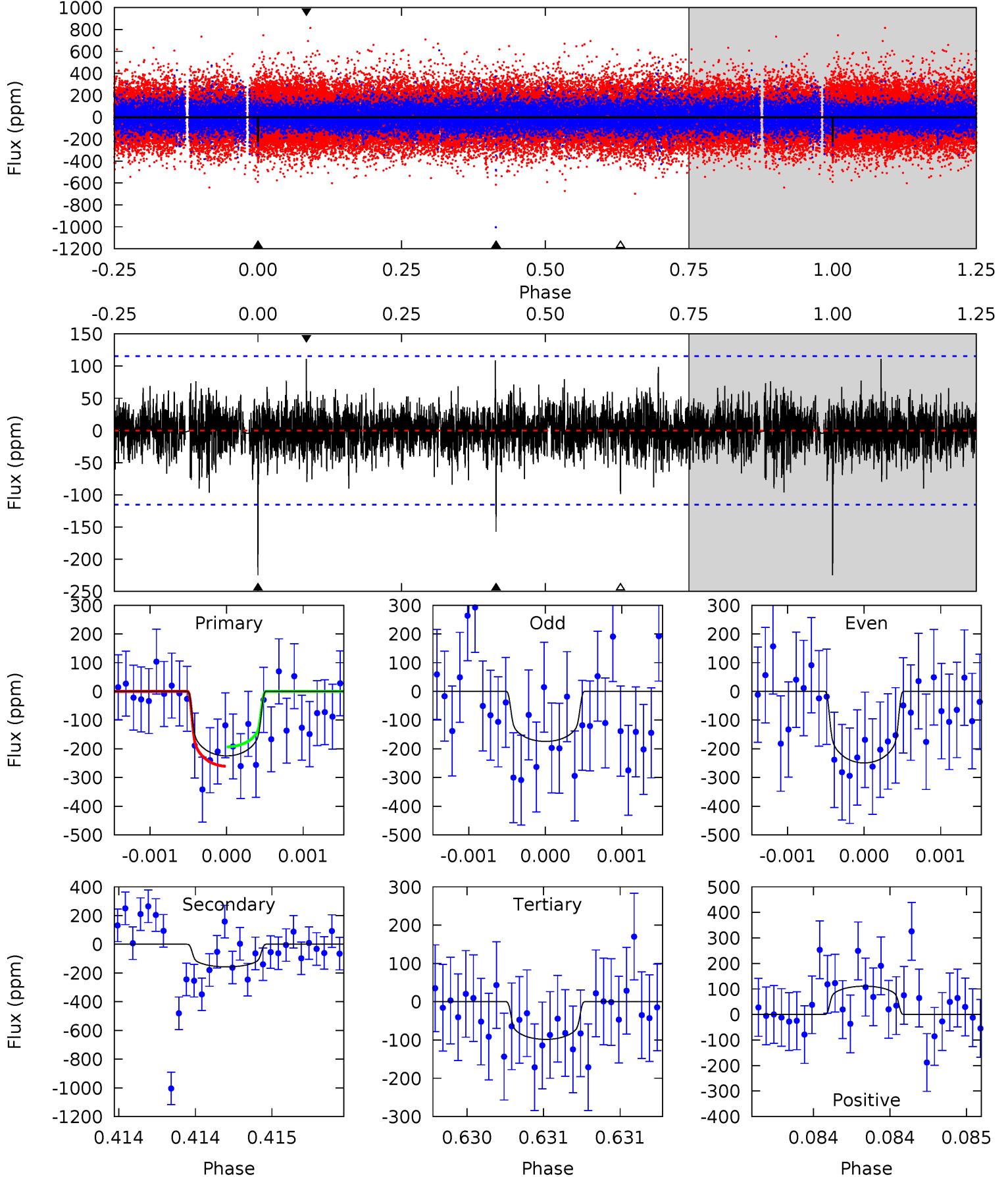
TCE 007667596-01 P=682.106289 Days $T_0=134.857093$ (BKJD)



DV Model-Shift Uniqueness Test

007667596-01, P = 682.126109 Days, E = 134.822495 Days

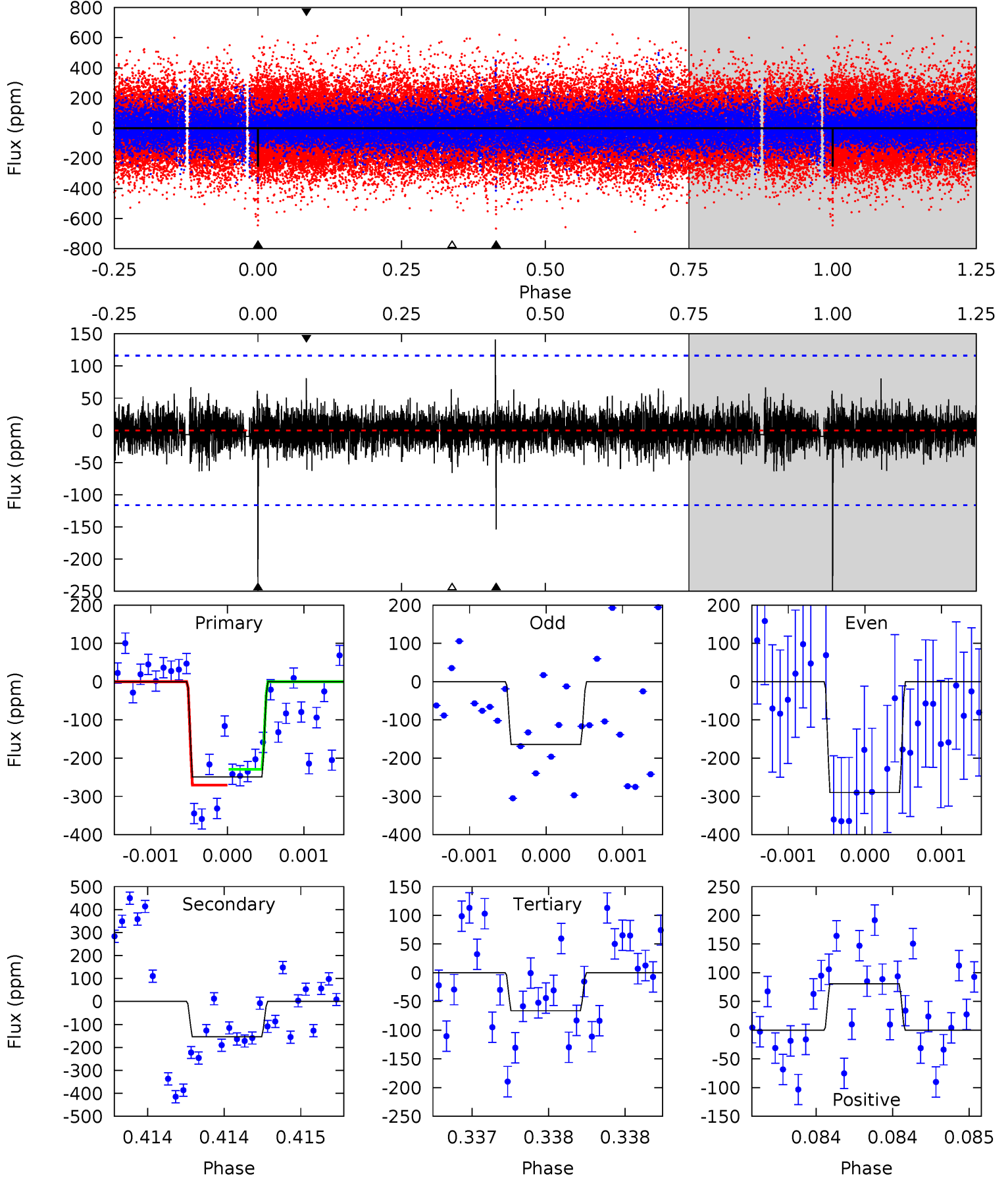
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	7.56	4.74	5.35	5.56	3.46	1.14	6.09	5.48	2.83	2.22	1.68	1.20	0.33	1.62



Alt Model-Shift Uniqueness Test

007667596-01, P = 682.106289 Days, E = 134.857093 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	7.35	3.17	3.86	5.56	3.47	0.83	8.75	8.06	4.19	3.49	2.84	1.27	0.36	0.98



Stellar Parameters For KIC 007667596

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5465^{+164}_{-147}	$4.459^{+0.112}_{-0.150}$	$-0.100^{+0.300}_{-0.300}$	$0.894^{+0.195}_{-0.120}$	$0.840^{+0.110}_{-0.073}$	$1.655^{+0.709}_{-0.683}$
	+3%/-3%	+3%/-3%	+300%/-300%	+22%/-13%	+13%/-9%	+43%/-41%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007667596-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-157 ± 21	$1.62^{+0.90}_{-0.75}$	268^{+17}_{-13}	4849^{+1671}_{-708}	$66432^{+177624}_{-37979}$
Alt.	-154 ± 21	$1.56^{+0.83}_{-0.73}$	268^{+16}_{-13}	4961^{+1706}_{-793}	$73237^{+169509}_{-43589}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

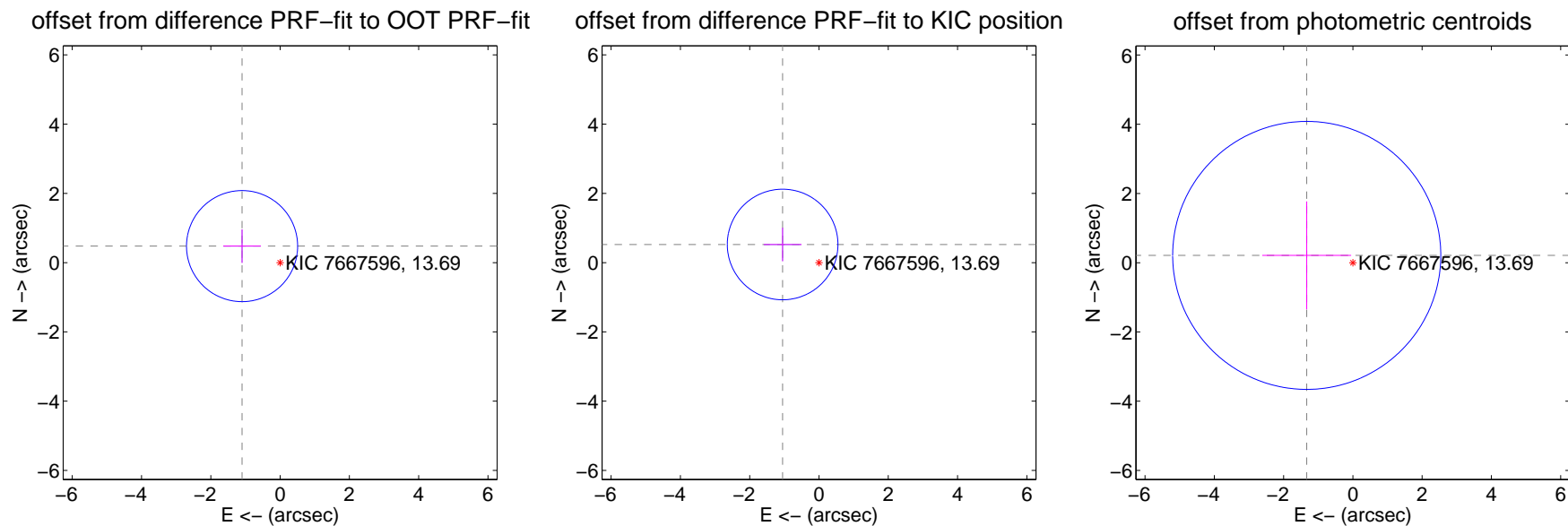
DV Centroid Data

Supplemental centroid analysis for 007667596-01. Kepler magnitude: 13.69. Transit SNR 8.56

There are 1 quarters with good PRF difference image offsets

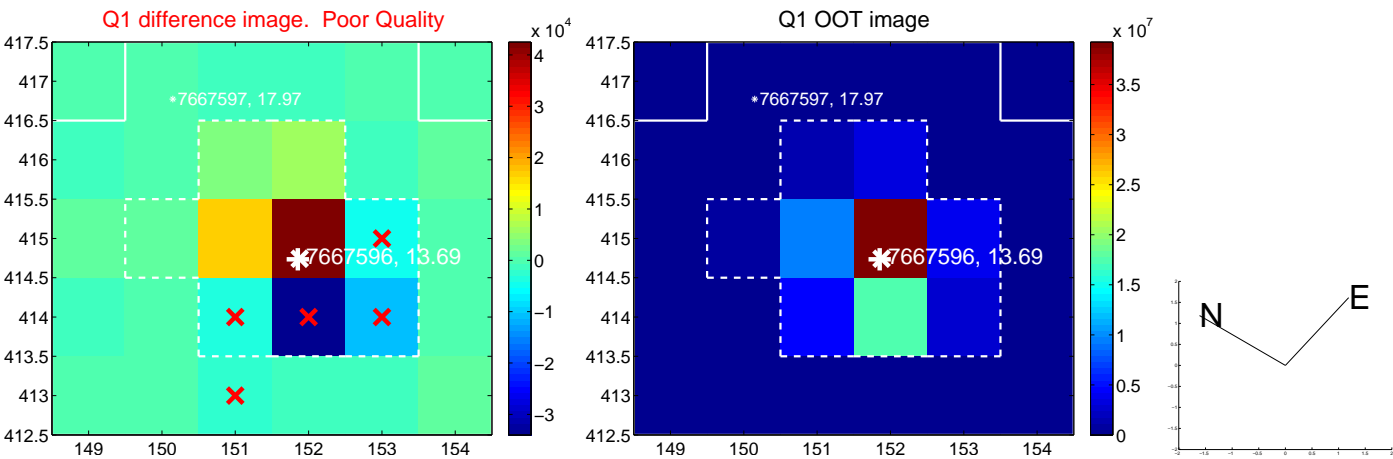
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.197 ± 0.535	2.24	1.098 ± 0.544	0.477 ± 0.484
PRF-fit source offset from KIC position	1.174 ± 0.532	2.20	1.050 ± 0.544	0.524 ± 0.484
photometric centroid source offset	1.35 ± 1.29	1.05	1.33 ± 1.28	0.21 ± 1.56



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

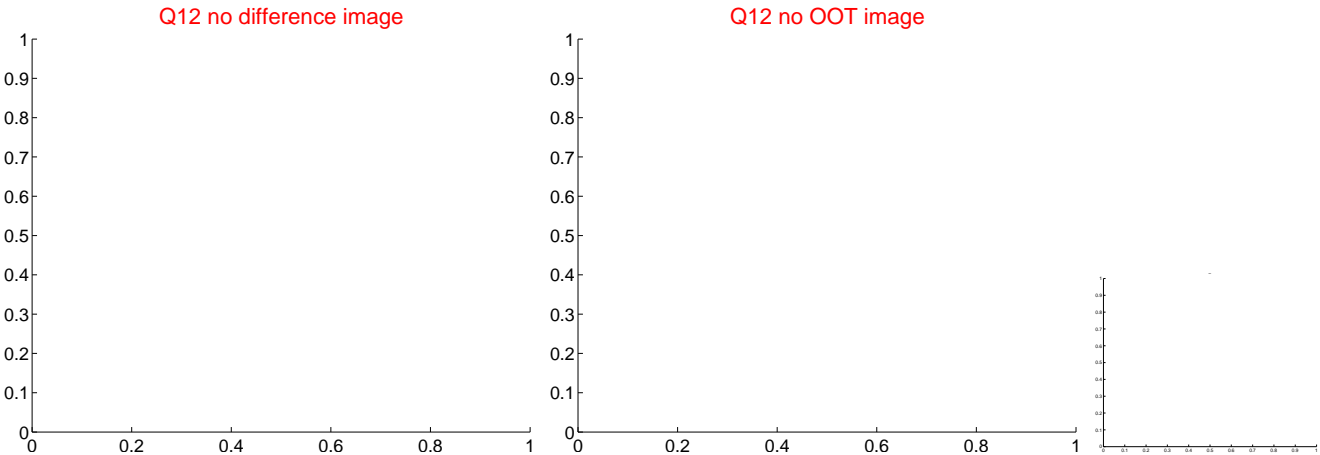
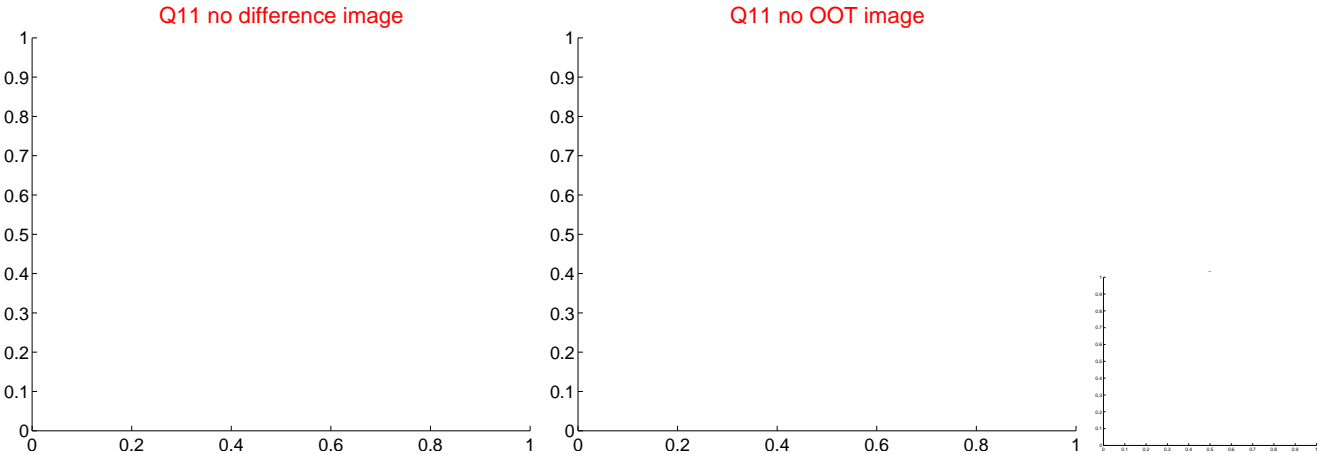
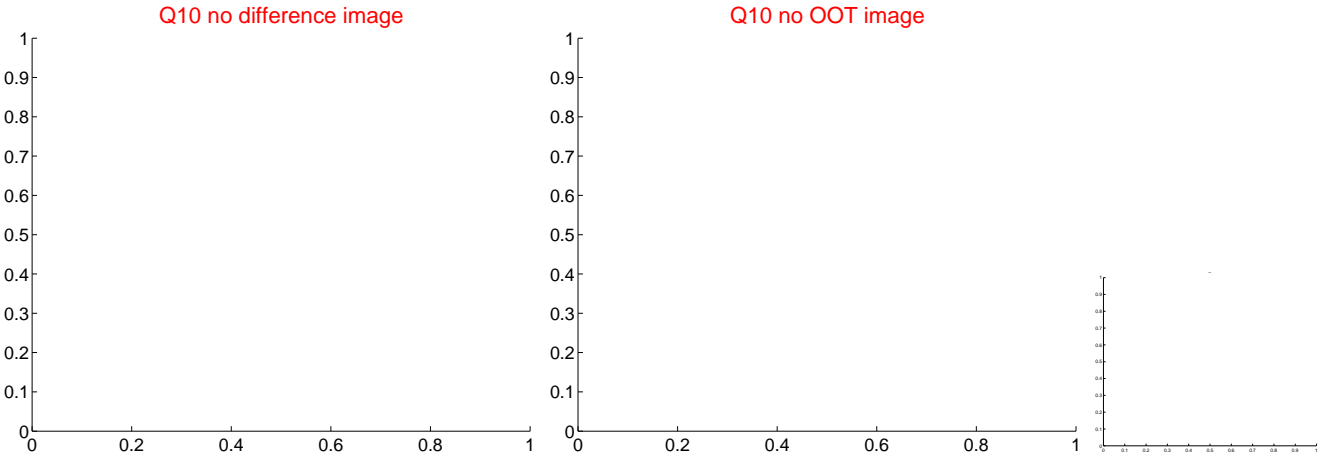
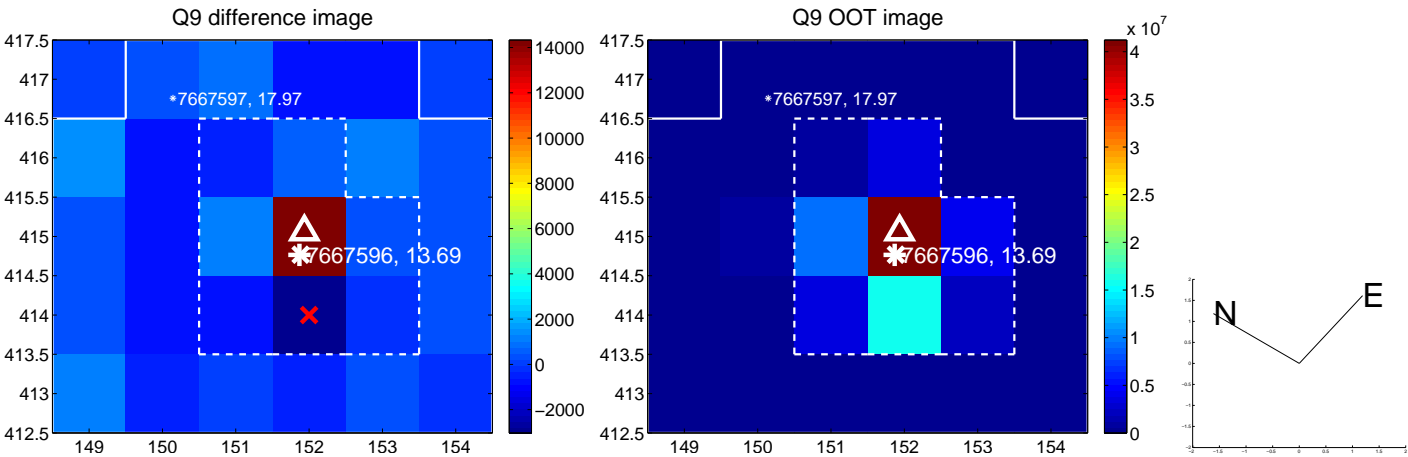
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



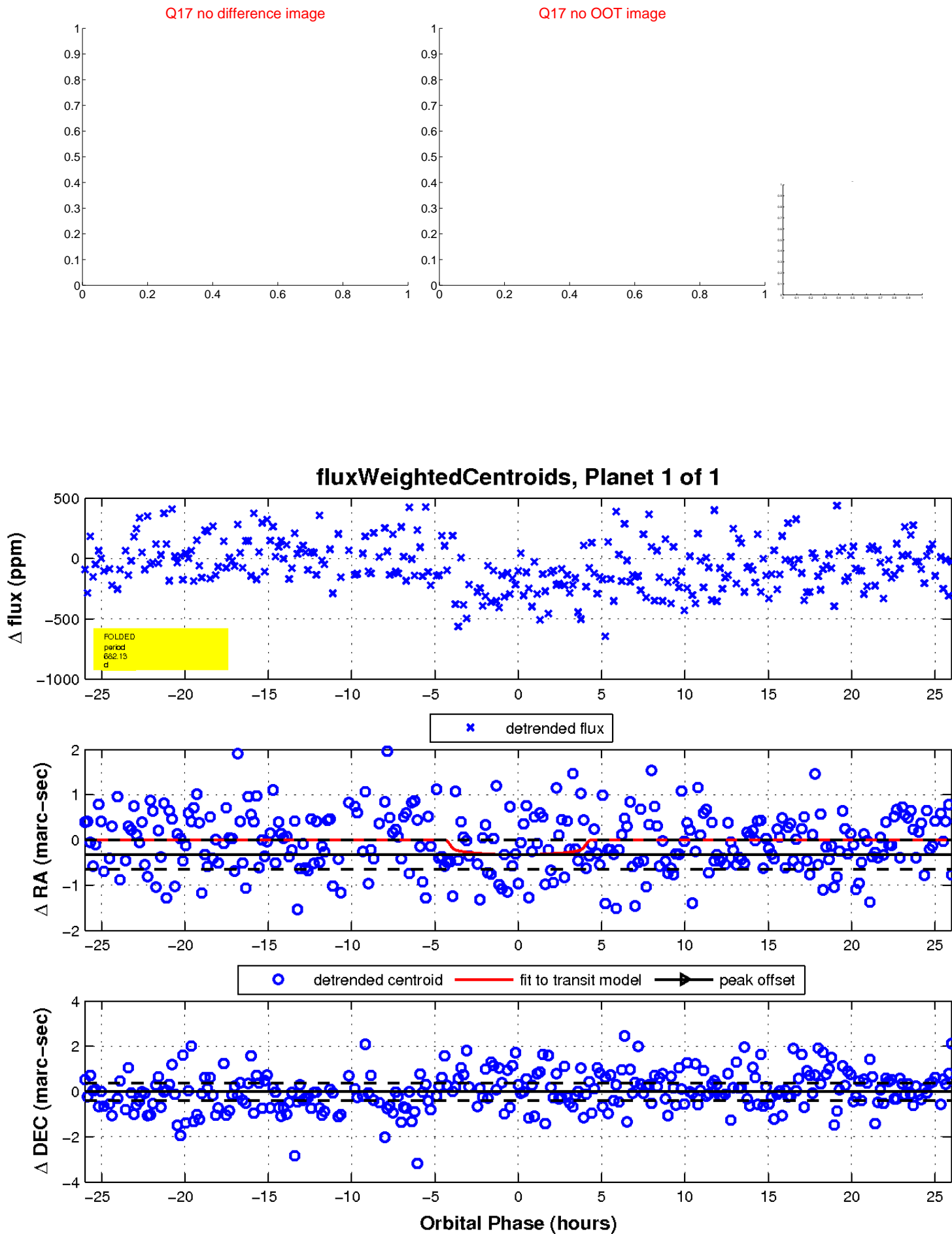
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

